

Adverse Driving Conditions



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Adverse Driving Conditions

This chapter contains information regarding driving in poor conditions. It provides you with information on the following:

- nighttime driving
- driving in the rain, snow, or fog
- road surfaces
- emergencies

Coastal Nova Scotia is known for harsh and variable weather. In this ocean-side province, the secret to arriving safely is to adapt your driving to adverse driving conditions. Some road and weather conditions warrant slow and cautious driving. Slippery roads caused by rain, snow, or sleet, and gravel or dirt roads, make it much more difficult to control your vehicle. Fog, rain, snow, and floods reduce visibility and can cause moisture to form on your brakes. This will increase your stopping distance. These road and weather conditions are especially dangerous because your vehicle may not respond as expected, even though you may respond quickly and diligently.

To prevent the weather conditions from controlling your vehicle, you must

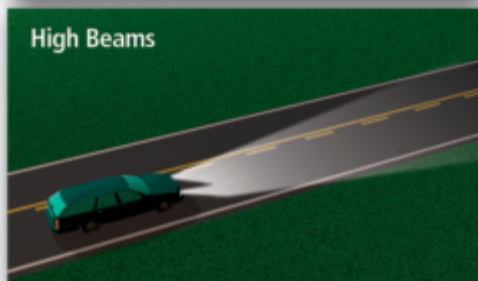
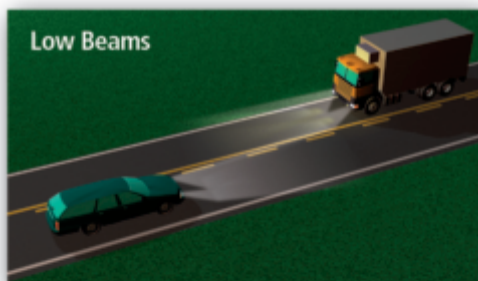
- anticipate potential problems. This may mean driving cautiously or not driving at all when dangerous weather conditions exist. Ask yourself: Have I listened to the weather forecast? Should I be on the road?
- be ready to respond to weather conditions and their effects on you and your vehicle. If you learn about potential weather hazards and learn what to do when you begin to lose control of your vehicle, you will be better prepared to deal with adverse driving conditions. The provinces and industry conduct ongoing research to improve driving standards. Keep up to date by reading articles and reports about driving techniques and vehicle improvements such as ABS brakes.

Reduced Visibility

Nighttime driving

Nighttime driving is much more dangerous than daytime driving because

- you cannot see as well in the dark
- there are more impaired drivers on the road at night
- you are more likely to be tired and therefore less alert at night—driver inattention is a leading cause of collisions
- headlights of oncoming vehicles can blind you



High and Low
Beams Outside

Tips for nighttime driving:

- Use your headlights for all nighttime driving, starting half an hour after sunset and continuing until half an hour before sunrise.
- Also use your headlights any time that you can't see at least 300 metres ahead.
- When you drive at night in a city, use lowbeam headlights. On the open road, use highbeam headlights unless you are approaching or following another vehicle.
- By law headlights must be dimmed within 150 metres of an approaching vehicle and 60 metres when following a vehicle on any highway.
- Drive at a controlled rate of speed.

Remember:

- Even if the oncoming driver does not dim his or her lights, keep your lights on lowbeam.
- Stay on the right side of the road and use the edge of the road as a guide
- Reduce your speed and watch the road as far ahead as possible. Look slightly to the right so you will not be looking directly into the headlights of oncoming traffic.
- Practice doing safety scans so that you can be aware of everything around you.

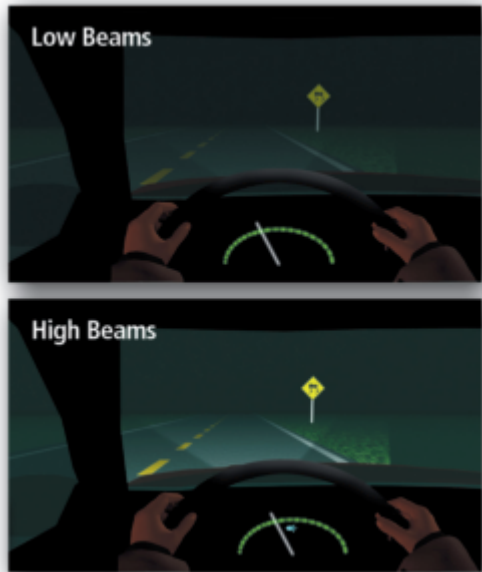
Sunlight glare

Sunlight, either direct or reflected, poses a dangerous driving situation. To reduce this problem, adjust your sun visor and wear sunglasses. If these do not help, stop on the roadside, well away from moving traffic, until you can drive safely.

When you enter a tunnel or underground parking garage on a bright day, remember to slow down, remove your sunglasses, and turn on your headlights.

Rain, snow, and fog

Rain, snow, and fog reduce visibility and limit your ability to see clearly. You should slow down gradually, avoid sudden stops, increase your following distance, and stay alert. Use lowbeams only. The light from your highbeams will reflect off the precipitation, making it more difficult to see ahead. Do not use parking lights when driving your vehicle on the highway, especially when adverse conditions reduce visibility.



High and Low
Beams Inside

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If you have extreme trouble seeing, you need to

- pull as far off the roadway as possible
- stop, secure the vehicle, and turn on its emergency flashers
- leave the car from the passenger side and stay away from the road

A trucker's blind spots

Many motorists believe that truck drivers can see farther ahead and can react more promptly to events as they develop because they sit higher than most other drivers. Being higher does have some advantages. However, truckers have serious blind spots immediately in front of the cab, on either side of the cab, and up to 200 feet in the rear. A trucker cannot see over or through another truck in front of him or her any better than you can and may have a limited view of the road directly in front of the cab. Some truckers can't see the first 20 feet of road in front of their bumper. This provides plenty of room for a car to slip unnoticed into a position of danger. Even on more streamlined tractors with sloped hoods or with no front hood, there can be a blind spot of up to ten feet.

The blind spots on the sides and to the rear restrict a trucker's ability to take evasive action to avoid crashes. To make yourself more visible, turn on your headlights, use your signal lights for changing lanes, sound your horn when overtaking and passing, and put more space between yourself and the vehicle in front of you. Remember, if you can't see the truck driver in the truck's side mirror, the trucker can't see you.

Changes to the Road's Surface

Rain

Rain both reduces visibility and makes roadway surfaces dangerous. When it rains, you should drive more slowly than usual and use your lowbeam headlights and windshield wipers. Increase normal following distance to four or more seconds. Stopping distances on slippery pavement are from two to ten times farther than on dry pavement.

Roads are most dangerous for the first 10 to 15 minutes after the rain has begun to fall, especially if it has not rained for a while. This is because oil from the asphalt and residues left on the road by vehicles mixes with dirt, dust, rubber, and rain water to create a slick surface.

Wet pavement, when combined with other factors such as vehicle speed and improper tire pressure, can cause you to lose vehicle control due to hydroplaning. In a standard passenger car, partial hydroplaning starts at about 55 km/h and increases with speed. At about 85 km/h, the tires may be riding totally on top of the water. When this happens, there is no friction available to brake, accelerate, or corner. A gust of wind or even a slight turn could create an unpredictable and uncontrollable skid. When roads are wet, reduce your speed to avoid hydroplaning.

Your brakes are also a concern in the rain. Wet brakes are less effective. When driving in the rain, test your brakes regularly. If the brakes don't respond normally, apply some pressure to the brake pedal with your left foot while you apply light pressure to the gas pedal with your right. Continue until the brakes work normally.

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Snow, frost, and ice

Snow and ice make roads very slippery, especially when the temperature is at or below freezing. Slush makes it difficult to steer, hard packed snow increases the danger of skidding, and black ice makes driving extremely dangerous. Black ice is a thin layer of ice that forms on the road's surface. Stopping distances for a vehicle travelling at 30 km/h are approximately 6 metres on dry pavement, 22 metres on packed snow, and 52 metres on black ice.

Remember that condensation on shaded sections of the highway and on bridges and overpasses will freeze before the rest of the road. Shaded sections, bridges, and overpasses will also take longer than other parts of the highway to thaw.

If you must drive during a snowstorm, reduce your speed, use your windshield wipers and defroster, and turn on your lowbeam headlights. Reduce your speed by more than half for packed snow and slow to a crawl on ice. Using chains or studded tires may improve your traction on snow and ice.

Gravel or dirt roads

You should use care when driving on any unpaved roads. Even under ideal conditions and when driving slowly, controlling your vehicle may be difficult. The loose dirt or gravel on these surfaces increases stopping distances significantly. Drive cautiously.

About four-wheel drive

The amount of traction or friction between your tires and the surface of the road determines the amount of control you have over your vehicle. Each element listed on the previous page reduces traction, making road surfaces slippery. Even if you have four-wheel traction, you cannot stop any quicker on a slippery road surface. Vehicles in four-wheel drive handle differently than when they are in two-wheel mode. Having four-wheel drive may create a false sense of security. Drive cautiously.

Tips for dealing with slippery surfaces:

- Make only slight and gentle movements with your brake, accelerator, and steering wheel. Sudden braking or accelerating could cause a skid.
- Allow more time to complete your journey.
- Roads are the most slippery during the first 10 minutes of a storm, so adjust your speed to the conditions and drive with caution.
- Test the road surface to determine if slippery by applying brakes slightly. If one of the tires locks, release brakes immediately. This is called threshold braking.
- Early-morning frost can be a serious problem during the fall and spring months. Check the forecast and listen for updates. Road surfaces are far more slippery near 0°C than at colder temperatures of -10° or -20°C.
- Watch out for other drivers.

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Stopping on ice

If you apply your brakes suddenly on an icy road, your car will go into a skid. If you have to stop on a slippery surface, it is advisable to keep the clutch engaged and apply slight gradual pressure to the brakes, gradually slowing the vehicle without locking the wheels. Using studded tires will decrease your stopping distance on ice.

Rules for winter driving

Follow these simple rules for winter driving:

- Drive defensively and be prepared for any situation.
- Adjust your speed to the road and weather conditions.
- Allow yourself time and space to stop safely.
- Keep the windshield and windows clear.
- Be sure headlights, wiper blades, and defrosters are in top working condition.
- Get the feel of the road by trying your brakes occasionally whenever it is safe to do so.
- Use snow tires, tire chains, or studded tires on snow and ice.



Emergencies

General highway trouble

Emergencies occur anytime, anywhere, and usually when you least expect them. Knowing what to do in a given situation can help you deal with the emergency and may even reduce its effect.

You can avoid many potential vehicle emergencies by having your vehicle serviced regularly. Check your vehicle owner's manual for the recommended maintenance schedule. Here are some suggestions for dealing with potential problems:

- At the first sign of trouble, signal and take defensive action. Check your mirrors, put on your four-way flashers, slow down, and pull over as far off the road as possible. Never stop in the driving lanes.
- If you have a cellular phone, call for help. If not, put a "Call Police" sign in your side or back window, or tie a white cloth around the antenna. Do not raise the hood. Stay in your vehicle with the doors locked. If someone stops, ask him or her to call the police or an automobile club for you.
- Whenever you have a choice of braking or steering to avoid a collision, generally it is best to use evasive steering rather than braking. Alternatively, combine threshold braking with steering. Steering is better than braking at speeds over 40 km/h, because you need less distance to steer around an object than to come to a complete stop.
- You threshold brake by applying firm, steady pressure on the brake pedal just short of the point where the wheels lock up or stop turning. Ease off the brakes slightly if the wheels do lock, then repeat. Many newer vehicles have an antilock braking system (ABS). This system prevents the brakes from locking, allowing you to press on the brake pedal as hard as you can. Because the brakes will not lock, you can still steer. Be sure to read the vehicle owner's manual on how to use your ABS.

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Brake failure

If your brakes fail, try pumping the brake pedal several times to build up enough hydraulic pressure to allow you to stop. If that doesn't work, apply the parking brake gently but firmly while holding the release button. Holding the release button will allow you to manually increase or decrease braking pressure. Once you manage to get stopped, do not attempt to drive away. Get help.

Tire blowouts

A tire blowout can cause tremendous steering and wheel vibration. You may notice this vibration either when the air pressure in a tire is very low or after the tire blows. If this happens, do not use the brake. Hold the steering wheel firmly. Ease your foot off the accelerator slowly. Try to steer the vehicle to a safe stop off the highway.

Power failure

Power failure will cause loss of power steering and power brakes. This means it will be difficult, but not impossible, to turn and to stop. It will take more effort to turn the steering wheel and you must apply more pressure to the brake pedal. Move off the highway and stop when you safely can. Get help.

Headlight failure

If your headlights suddenly go out, check the light switch a couple of times. Try switching between highbeams and lowbeams. If that does not work, turn on the four-way emergency flashers and any other light that may still work, such as turn signals or fog lights. Get off the highway as quickly and as safely as possible. Remember, it is both dangerous and illegal to drive at night without lights.

Sticking gas pedal

If your gas pedal sticks, try tapping the pedal or lifting it by sliding your foot under it. Keep your eyes on the road. Don't bend down to lift the pedal with your hand. Turn on your four-way emergency flashers, shift to neutral, apply firm pressure to the brakes without locking them, and pull off the road when it is safe to do so. Turn off the engine. Call for help.

Vehicle fires

Rarely does a vehicle catch fire. If your car does catch fire, or if you see or smell smoke, move the vehicle off the highway and turn off the ignition immediately. Get passengers out of and away from your vehicle. Move at least 30 metres away. Fighting a fire safely and efficiently requires quick thinking and fast action. Use extreme caution if you try to put the fire out yourself.

- Shut off all remaining switches, such as ignition, lights, and radio.
- Use a fire extinguisher, not water. Water spreads gasoline and oil fires. You may also try smothering the flames with earth, sand, or large articles of clothing. You should carry a small fire extinguisher in your vehicle.
- When using a chemical extinguisher, keep some chemical in reserve for flare-ups.
- Whenever possible, fight fires with the wind at your back.
- If you need to open the hood, do so slowly to avoid a flare-up. Opening the hood may introduce fresh air and oxygen to the fire. This will make it worse.
- Don't risk your life. Gasoline fires can spread rapidly and may explode.

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Skids

Stopping on ice requires skill, patience, and more distance than usual. Your vehicle may go into a skid if you shift gears, apply the brakes, or suddenly move the steering wheel. Take your foot off the gas pedal and allow the vehicle to slow down. Use evasive steering to avoid collisions. When the vehicle has slowed enough, try threshold braking.

When rain, snow, ice, or loose gravel comes between your tires and the highway, there is the possibility of a skid. Remember, too, that rain or snow on bridges and overpasses freezes before the rest of the roadway.

Wheels leaving the pavement

When your tires drop off the pavement onto the shoulder of the road, be careful. Returning to the highway from the shoulder can be extremely dangerous. Resist the urge to whip the vehicle immediately back onto the pavement. You may lose control of the vehicle. When it is safe and your steering is under control move the steering wheel smoothly back onto the pavement, keeping your eyes forward looking at the centre of your lane. This allows the leading edge of the front tire to climb up over the edge of the pavement smoothly.

Animals on the road

Always be alert for animals on the road. Animal crossing signs warn you where there is a known danger of large animals such as moose, deer, or cattle stepping out onto the road. Animals, however, may appear from anywhere. Look well ahead. At night, use your highbeams when possible.

Vehicle plunging into water

Your vehicle will float for three to ten minutes if the windows are closed. Your seatbelt can prevent you from being knocked unconscious during the vital moments required to escape. Doors will be difficult to open at first due to water pressure as the vehicle begins to sink or because of vehicle damage. As the vehicle fills with water, pressure inside and outside equalizes.

The best escape route is through the windows. If you have power windows, roll them down immediately, because water will cause a short circuit in the electrical system. If you can't open the windows, try not to panic.

Most vehicles will sink nose first, so the air trapped inside will be pushed to the rear near the roof. You may need to breathe this air while waiting for the pressure inside and outside to become equal. Then it will be easier to open a door and get out.

Electrical wires on the roadway

Stay in the vehicle if at all possible. Do not touch the ground or anything outside the vehicle. Staying in the vehicle is always the first choice, but if you must exit because of other circumstances, such as fire, you need to jump clear with both feet together, not touching any other part of the vehicle. Then shuffle with both feet together, away from the scene, until you are at least 20 metres, or 65 feet, away. Onlookers, too, should know the importance of staying clear of any accident involving live wires.



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Encountering snow plows

During winter storms, watch for snow plows clearing the roads. The flashing lights warn you of wide, slow-moving vehicles. Some snow plows have a wing that extends up to three metres to the right of the vehicle. On highways, several snow plows may be staggered across the road, clearing all lanes at the same time by passing a ridge of snow from plow to plow. Do not try to pass between them. This is extremely dangerous. There is not enough room to pass safely, and the ridge of wet snow can throw your vehicle out of control.



Collisions

Procedures and responsibilities

The driver of a vehicle involved in a collision must stop immediately. It is an offence to leave the scene of a collision. You must file a report within 24 hours with the local police, the RCMP, or the Registry of Motor Vehicles if the collision involves personal injury, death, or property damage of \$2000 or more.

If you are involved in a collision, you must provide your name, address, and vehicle permit for the vehicle you are driving to the person struck, to the driver or occupant of the other vehicle, or to a witness. You must also give all reasonable assistance to any injured person.

If you are physically incapable of making a report and another occupant is in the vehicle, then the occupant must make the report.

If you are in charge of a garage or repair shop and you receive a vehicle for servicing that shows evidence of having been involved in a serious collision, then you must notify the police within 24 hours. Your report must include the vehicle make, the serial and registration numbers, the name and address of the operator or owner, and the name of the person who brought it to or left it in your repair shop.



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If you are involved in a collision that damages an unattended vehicle or property, you and every driver involved must take reasonable steps to locate and notify the owner. If you are unable to locate and notify the owner, then you must notify the police within 24 hours.

Suspension of a licence after a collision

If the Registry of Motor Vehicles receives a report of a collision causing property damage in an apparent amount of \$50 or more or in bodily injury or death, and there is no proof of financial responsibility, your licence and all registrations in your name will be suspended.

